



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,293	02/12/2002	Harry Contopanagos	BP2108	4912
51472	7590	03/31/2010		
GARLICK HARRISON & MARKISON				
P.O. BOX 160727				
AUSTIN, TX 78716-0727				
EXAMINER				
ANDUJAR, LEONARDO				
ART UNIT		PAPER NUMBER		
2826				
NOTIFICATION DATE		DELIVERY MODE		
03/31/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

MMURDOCK@TEXASPATENTS.COM

SMCWHINNIE@TEXASPATENTS.COM

**Office Action Summary****Application No.**

10/074,293

**Applicant(s)**

CONTOPANAGOS ET AL.

**Examiner**

Leonardo Andujar

**Art Unit**

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/10/2010 has been entered.

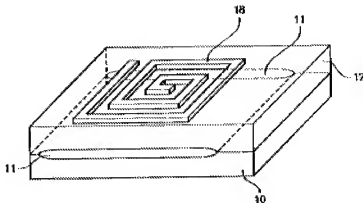
### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 9 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chen (US 6,057,202).
4. Regarding claim 9, Chen (e.g. fig. 1) teaches an on-chip inductor consisting of: a dielectric layer 12; a conductive winding 18 on the at least one dielectric layer; and a field oxide layer 11 having a major surface parallel to a major surface of the dielectric layer, and a substrate 10 having a major surface parallel to the major surface of the dielectric layer (col. 1/lis. 5-23).



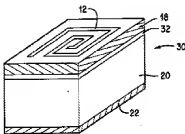
### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grzegorek et al. (US 5,760,456) in view of Zhu et al. (US 6,133,079) .

7. Regarding claims 1 and 3, Grzegorek (e.g. figs. 3) teaches an on chip inductor consisting of a dielectric layer 18; a conductive spiral winding 12 on the dielectric layer; a heavy doped well 32 having a major surface parallel to a major surface of the dielectric layer and a substrate 20/22 having a major surface parallel to the major surface of the dielectric layer (see abstract). Grzegorek does not teach that the well is a p well.



However, Zhu (e.g. fig. 4) teaches an inductor 60 formed over a heavy doped well 28 which is a p well. It would have been obvious to one of ordinary skills in the art to make the heavy doped well of Grzegorek as a p type well because the use of a particular known technique was recognized as part of the ordinary capabilities of one skilled in the art and because a person of ordinary skill has a good reason to pursue the known option within his or her technical grasp (see *KSR International Co. v. Teflex Inc.*, 550 U.S.-,82 USPQ2d 1385 (2007)). In this case, the only two available options are p well and n well.

8. Regarding claims 2 and 9, Grzegorek (e.g. figs. 3) teaches an on chip inductor consisting of a dielectric layer 18; a conductive winding 12 on the dielectric layer; a heavy doped well 32 having a major surface parallel to a major surface of the dielectric layer and a substrate 20/22 having a major surface parallel to the major surface of the dielectric layer (see abstract). Grzegorek does not teach that the well is a p well or a field oxide having a major surface that is juxtaposed to the major surface of the well. However, Zhu (e.g. fig. 4) teaches an inductor 60 formed over a heavy doped well 28 which is a p well and a field oxide 50 having a major surface that is juxtaposed to the major surface of the well. It would have been obvious to one of ordinary skills in the art to make the heavy doped well of Grzegorek as a p type well and a field oxide having a

major surface that is juxtaposed to the major surface of the well as disclosed by Zhu because the use of a particular known technique was recognized as part of the ordinary capabilities of one skilled in the art and because a person of ordinary skill has a good reason to pursue the known option within his or her technical grasp (see KSR International Co. v. Teflex Inc., 550 U.S., 82 USPQ2d 1385 (2007)). In this case, the only two available options are p well and n well. Moreover, FOXs are conventionally used to isolate the plural devices which are inherently present in the substrate (col. 1/1ls. 10-20)

#### ***Response to Arguments***

9. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonardo Andújar whose telephone number is 571-272-1912. The examiner can normally be reached on Mon through Thu from 9:00 AM to 7:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Purvis can be reached on 571-272-1236. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Leonardo Andújar/  
Primary Examiner, Art Unit 2826